PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	
158165 CL-AT	See Form PCT/IPEA/416	
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/NO2004/000189	25.06.2004	03.07.2003

International Patent Classification (IPC) or national classification and IPC
B62B9/20, F16B7/14

Applicant
STOKKE AS et al.

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☒ *sent to the applicant and to the International Bureau)* a total of 1 sheets, as follows:
      ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
03.05.2005	22.11.2005

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/NO2004/000189

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
   - ☐ international search (under Rules 12.3 and 23.1(b))
   - ☐ publication of the international application (under Rule 12.4)
   - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages	
1-4	as originally filed
Claims, Numbers	
1-4	received on 10.05.2005 with letter of 03.05.2005
Drawings, Sheets	
1/3-3/3	as originally filed

   ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

* *If item 4 applies, some or all of these sheets may be marked "superseded."*

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-4
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-4
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-4
	No:	Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Subject: Locking device for a telescopic stem of a trolley

Prior art: document D1 = GB2351762 shows a locking device according to the preamble of claim 1

Problem: the locking device risks sliding as load is applied

Solution: by the characterising features of claim 1, in particular by providing a toothed friction element in the outer stem into which a toothed blocking element is pressed by a conical groove (or, as specified in the description page 3 line 21: a conical area or track). The locking device of D1 relies on friction forces created by the expansion of an elastic material, when the device of D1 interposes a friction element, the blocking element can grasp the friction element as they are both toothed.
The solution is neither shown nor suggested by the available prior art.

Therefore the claim 1 and the dependent claims 2 - 4 meet the requirements of Articles 33(2) and 33(3) PCT.

Patent claims

1. Locking device for a telescopic stem for a trolley, wherein the stem comprises an inner stem (1) connected to a handle (1a), which may glide within an outer stem (2), a handle (8) at the upper end of the inner stem (1) for controlling the locking of the inner stem (1) in relation to the outer stem (2), the handle (8) connected to a rod (7) running through the inner stem (1), **characterised in that** a toothed friction element (3) is arranged in the outer stem (2) and that the inner stem (1) is equipped with a toothed blocking element (4) locking into the friction element (3) and preventing movement of the inner stem (1) in relation to the outer stem (2) when the blocking element (4) is pressed into the toothed friction element (3) by a conical groove (6) of a housing (5) connected to the rod (7) influencing the position of the housing (5).

2. Locking device according to claim 1, **characterised in that** the friction element (3) is arranged on an inner area of the outer stem (2).

3. Locking device according to any of the claims 1-2, **characterised in that** the a blocking element (4) is arranged on the lower side of the stem (1), opposite the friction element (3).

4. Locking device according to any of the claims 1-3, **characterised in that** the housing (5) and/or the blocking element (4) is spring-loaded by a spring (9), automatically affecting locking by the friction element (3).